

Shoketsu Kinszoku Kogyo Kabushiki Co., Ltd (SUPREME COURT RULING, July 12, 2002).

OBJECTION TO THE DRAWINGS

At page 2, item 1 of the Office Action, Fig. 12 was objected to for lacking the label "Prior Art."

It is respectfully submitted that in order to address the Examiner's concerns, a Request for Approval of Corrected Drawings, together with A Request for Entry of Correctly Formal Drawings is included herein. Accordingly, withdrawal of this objection and approval and entry of the corrected formal drawings are earnestly solicited.

OBJECTION TO THE SPECIFICATION

At page 2, item 2 of the Office Action, the specification was objected to for using the word "blue" instead of the word "green". It is respectfully submitted that the specification has been amended as suggested by the Examiner in order to address her concerns. Accordingly, withdrawal of this objection is earnestly solicited.

REJECTIONS UNDER 35 U.S.C. § 112

Claims 1-7 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for not being more clear as to where the preamble of claim 1 ends.

It is respectfully submitted that independent claim 1 has been amended in order to address the Examiner's concerns, and withdrawal of this rejection is earnestly solicited.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1, 2 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Teng et al. (U.S. Patent No. 6,229,252) in view of Ushifusa et al. (U.S. Patent No. 5,818,168). This rejection is respectfully traversed for the reasons stated below.

At page 3, item 6 of the Office Action, the Examiner alleges that Teng et al. discloses each of the features recited in independent claim 1 except "the structural limitations of the plasma displayed device." The Examiner then alleges that since Ushifusa et al. disclose "that a

plasma display device has blue, green and red phosphors (a type of fluorescent) each in their own discharge cell (column 13, lines 55-63), ... it would have been obvious to one of ordinary skill in the art that the time the invention was made to use red, blue and green phosphors, as taught by Ushifusa, to create a color display device."

Applicant agrees with the Examiner that Teng et al. does not teach or suggest, among other things, the structural limitations of a plasma display device, and therefore Teng et al. is directed to a non-analogous art with respect to applicant's invention. Moreover, applicant respectfully points out that although Teng et al. uses a filter that increases the color temperature of the mixed color, this filter in Teng et al. is not a filter that converts a mixed color of light emission colors of three kinds of cells when reproducing a white color into a color having a higher color temperature, defined by chromaticity coordinates that is closer to a blackbody locus and defined by chromaticity coordinates in which a negative deviation from the blackbody locus is generated. Stated differently, Teng et al. does not teach or suggest "a mixed color of the light emission colors of the three kinds of cells, the mixed color when reproducing a white color being set to a color defined by chromaticity coordinates in which a deviation from a blackbody locus is generated in a chromaticity diagram; and a filter located at the front side of the three kinds of cells, the filter having spectral characteristics of converting the mixed color to a color having a higher color temperature, defined by chromaticity coordinates that is closer to the black body locus and defined by chromaticity coordinates in which a negative deviation from the black body locus is generated," as recited in independent claim 1, as amended.

Regarding Ushifusa et al., although this patent addresses that red, green and blue phosphorus are used to create a color display, this is the extent of commonality between the present invention as recited and Ushifusa et al. In other words, Ushifusa et al. does not teach or suggest, among other things, "a mixed color of the light emission colors of the three kinds of cells, the mixed color when reproducing a white color being set to a color defined by chromaticity coordinates in which a deviation from a black body locus is generated in a chromaticity diagram," or "a filter located at the front side of the three kinds of cells, the filter having spectral characteristics of converting the mixed color to a color having a higher color temperature, defined by chromaticity coordinates that is closer to the black body locus and defined by chromaticity coordinates in which a negative deviation from the black body locus is generated," as recited in independent claim 1 of applicants invention, as amended.

In contrast with both Teng et al. and Ushifusa et al., the structure of the present

invention, as recited in claim 1, provides, for example, that in order to improve a display color using a filter, a mixed color of three colors in displaying a white color is intentionally made different from a color on a blackbody locus as an ideal color, which facilitates formation of a filter to improve a display color. If the mixed color is not an ideal color, it is not necessary to form a filter having a precision characteristic of absorbing only undesired light mixing with light of the mixed color (gas discharge light emission). Further, it is to be noted that it is an important feature that the color correction using the filter of the present invention leads to a color in which negative deviation from a blackbody locus is generated. The change of the mixed color not to an ideal color on a blackbody locus, but to a color in which a negative deviation is generated produces an effect that the color deviation cannot be conspicuous when a display load is large. (See, for example, page 4, line 16 through page 5, line 8). It is respectfully submitted that these features are not obvious to those skilled in the art, and are not addressed in either Teng et al. or Ushifusa et al.

Accordingly, it is submitted that for at least the reason that neither Teng et al. nor Ushifusa et al. address the concerns pointed out above and addressed by the applicant's invention as recited, there is simply no teaching, suggestion or motivation to combine these two patents in order to render the present invention as obvious. It is respectfully submitted that "obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 D.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Further, even if motivation was present to combine the teachings of Teng et al. and Ushifusa et al., this hypothetical combination would not have produced the present invention as recited in independent claim 1.

In view of the above points, it is respectfully submitted that independent claim 1, as amended, is patentable over both Teng et al. and Ushifusa et al., separately or in combination. Accordingly, withdrawal of this rejection and allowance of independent claim 1 are earnestly solicited.

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Teng et al. and Ushifusa et al., as applied to claims 1 and 2, and further in view of Ilcisin et al. (U.S. Patent No. 5,990,619). This rejection is respectfully traversed for the reasons stated below.

Applicant respectfully submits that since Ilcisin et al. is relied upon by the Examiner (at

column 2, lines 58-62) for the limited purpose of providing the use of nonuniform electrodes in plasma displayed devices, while not providing any of the features pointed out above that are lacking in both Teng et al., and Ushifusa et al., which are recited in independent claim 1, both claims 3 and 4, which depend from allowable independent claim 1, are patentable over Teng et al., Ushifusa et al., and Ilcisin et al., separately, or in combination thereof. Accordingly, it is submitted that claims 3 and 4 are also in condition for allowance, and withdrawal of this rejection and allowance of these claims are earnestly solicited

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Teng et al. and Ushifusa et al., as applied to claims 1 and 2, and further in view of Shiiki et al. (U.S. Patent No. 6,411,032). This rejection is respectfully traversed for the reasons stated below.

Applicant respectfully submits that for at least the reason that Shiiki is relied upon by the Examiner (column 2, lines 45-50 and Fig. 1) for the limited purpose of providing the use of discharge cells with varying widths, and does not teach or suggest the features pointed out above that are lacking in both Teng et al., and Ushifusa et al., as recited in independent claim 1, it is respectfully submitted that claim 5, which depends from allowable independent claim 1, is allowable over Teng et al., Ushifusa et al., and Shiiki et al., separately, or in combination thereof, and withdrawal of this rejection is earnestly solicited.

Claims 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Teng and Ushifusa as applied to independent claims 1 and 2 and further in view of Wedding (U.S. Patent No. 5,793,158). This rejection is respectfully traversed for the reasons stated below.

Applicant respectfully submits that for at least the reason that Wedding is relied upon by the Examiner (at column 14, lines 13-21) for the limited purpose of providing a plasma displayed device varying thickness values of the dielectric layers that cover electrodes for generating gas discharges, and does not teach or suggest the features pointed out above that are lacking in both Teng and Ushifusa, as recited in independent claim 1, it is respectfully submitted that claim 6, which depends from allowable independent claim 1, is allowable over Teng, Ushifusha and Wedding, separately, or in combination thereof, and withdrawal of the rejection and allowance of claims 6 are earnest solicited.

New claim

It is respectfully submitted that new claim 8 is allowable over the prior art of record for at least the reason that none of these documents teach or suggest, separately or in combination,

converting a mixed color of light emission colors of the three kinds of cells when reproducing a white color into a color having a higher color temperature, defined by chromaticity coordinates that is closer to a blackbody locus and defined by chromaticity coordinates in which a negative deviation from the blackbody locus is generated, as recited.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: March 4, 2003

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VERSION WITH MARKINGS TO SHOW CHANGES MADE**IN THE SPECIFICATION:**

Please AMEND the paragraph beginning at page 16, line 3, as follows:

The PDP 2 is also the three-electrode surface discharge type, whose basic structure is the same as the PDP 1. Between the partitions 229 arranged in a stripe shape, a fluorescent material layer (not shown) is arranged, so that the three cells aligned in the direction of the partition constitute one pixel. In the PDP 2, the transparent conductive film 241 and the metal film 242 constitute the main electrode, and the width of the transparent conductive film 241 is not uniform. Namely, the transparent conductive film 241 hangs over the surface discharge gap side in the red and blue cells and is formed wide partly. Thus, the electrode areas of the red and blue cells become greater than the [blue]green cell, and the light emission quantity of the green cell is weakened compared with the conventional structure in which the luminance ration among red, green and blue is the white color reproducing value that is a display target.

IN THE CLAIMS:

Please AMEND the following claims:

1. (ONCE AMENDED) A gas discharge display device that reproduces a color of each pixel of a color image by controlling light emission quantities of three kinds of cells having different light emission colors, the device comprising: [wherein]

a mixed color of the light emission colors of the three kinds of cells, the mixed color when reproducing a white color being [is] set to a color defined by chromaticity coordinates in which a [positive or negative] deviation from a blackbody locus is generated in a chromaticity diagram; [,] and

a filter located [is disposed] at the front side of the three kinds of cells, the filter having spectral characteristics of converting the mixed color to a color having a higher color temperature, [and] defined by chromaticity coordinates that is closer [close] to the blackbody locus and defined by chromaticity coordinates in which a negative deviation from the blackbody locus is generated.

Please add the following new claim:

8. (NEW) A method of reproducing a color of each pixel or a color image or a gas discharge display device by controlling light emission quantities of three kinds of cells having different light emission colors, comprising:

converting a mixed color of light emission colors of the three kinds of cells when reproducing a white color into a color having a higher color temperature, defined by chromaticity coordinates that is closer to a blackbody locus and defined by chromaticity coordinates in which a negative deviation from the blackbody locus is generated.



FIG. 12
(PRIOR ART)

